The following analyses showing the character of the Farmville coals were made under the direction of Dr. Dabney (by Mr. Battle, I believe,) at the Agricultural Department chemical laboratory.

A larger number of samples were taken for analysis at Farmville than at other points, because it seemed desirable to obtain an insight into the composition of these coals during the earlier stages of the exploration:

Analyses of Farmville coal,—Lower bed.

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.
Water at 115°C.....	1.71	0.75	2.15	1.36	1.32	.....	.....
Volatile matter.....	28.66	88.15	28.88	28.71	26.87	30.91	30.85
Fixed carbon.....	60.59		52.56	51.24	50.04	50.70	63.90
Sulphur.....	3.69	4.01	3.72	4.18	7.08	.....	.....
Ash.....	5.35	7.09	12.69	14.51	14.69	18.32	5.25
	100.00	100.00	100.00	100.00	100.00	99.93	100.00
Weight of cubic yard lbs.....	2,287	.....	2,286	2,253	2,248	.....	.....

No. 1.—Sample of lump coal from shaft 14 feet deep (Pit No. 6).

No. 2.—Analysis made from same sample as No. 1.

No. 3.—Average sample taken from the same shaft, from 60 tons of coal.

No. 4.—Slack coal mined at depth of 24 feet (Pit No. 13), average sample from large pile.

No. 5.—Picked lump coal (best) from the pile from which No. 4 was taken.

No. 6.—By Prof. Johnson.—This analysis is taken from Emmons' Report of 1856.

No. 7.—By Prof. Johnson.—This analysis is taken from Emmons' Report of 1856.

Averaging the first four analyses for sulphur we obtain 3.90 *per cent.*

Averaging all seven analyses we find the average ash equal to 11.13 *per cent.*

Analyses of Farmville coal,—Upper or "Big" bed.

	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.
Water at 115° C.....	1.79	0.40	1.95	1.71	2.35
Volatile matter.....	29.56	89.13	30.54	(81.39)	(93.62)
Fixed carbon.....	58.30		58.47		
Sulphur.....	2.89	3.11	2.19	3.30	0.22
Ash.....	7.46	7.36	6.85	13.60	3.81
	100.00	100.00	100.00	100.00	100.00
Weight of cubic yard, lbs.	2,231	.....	2,200	.....	.....

No. 8.—Taken at depth of ten feet, coal bright and black. (Pit No. 4).